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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,241

02/17/2004

David Vilkomerson

DVX-2

9659

76248

7590

05/29/2008

The Plevy Law Firm
10 Rutgers Place
Trenton, NJ 08618

EXAMINER

MEHTA, PARIKHA SOLANKI

ART UNIT

PAPER NUMBER

3737

MAIL DATE

DELIVERY MODE

05/29/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/780,241	Applicant(s) VILKOMERSON, DAVID	
	Examiner PARIKHA S. MEHTA	Art Unit 3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5,7,9-11,25-27,30,33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5,7,9-11,25-27,30,33 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/25/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 February 2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 2-5, 7, 9-11, 25-27, 30, 33 and 34 have been considered but are moot in view of the new ground(s) of rejection.

Examiner notes that Applicant indicated claims 1-11 and 22-34 as still pending in the application (Remarks p. 1); however, the concurrently filed claim set indicates claims 1, 6, 8, 28, 29, 31 and 32 as being cancelled. Examiner assumes this was a typographical error in the Remarks, and will proceed herein with examination of claims 2-5, 7, 9-11, 25-27, 30, 33 and 34 only.

Examiner further notes that Applicant did not adequately respond to all rejections previously made under 35 U.S.C. 112, and as such some rejections are maintained and reiterated herein. All other rejections previously made under 35 U.S.C. 101 and 35 U.S.C. 112 not reiterated herein are considered overcome by Applicant's amendments of 26 February 2008.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 and 9 recite the limitation "the Doppler velocity spectra" in line 4. There is insufficient antecedent basis for this limitation in the claim. Claims 3-5, 7, and 10-11 are similarly rejected in view of their dependence from claim 2.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-5, 7, 9-11, 25-27, 30, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Criton (US Patent No. 6,464,637), hereinafter Criton ('637), previously made of record, in view of Li (US Patent No. 6,142,944), hereinafter Li('944).

Regarding claims 2-5, 9 and 25-27, Criton ('637) teaches a method and system for correcting Doppler fluid velocity measurements for angular inconsistencies (Abstract), including means and steps for obtaining information about angle constancy (col. 1 lines 61-64), calculating angular positions of a velocity vector from at least two peak Doppler frequencies obtained from an ultrasound crossbeam (col. 1 line 64 – col. 2 line 6, col. 2 lines 50-53, Figs. 2 & 3), determining peak Doppler frequency errors by minimizing a difference between a calculated angular position and a determined true angular position (col. 3 lines 9-35), determining true peak Doppler frequencies (col. 4 lines 10-14), and determining a corrected velocity vector (col. 2 lines 3-6, col. 3 lines 6-58).

Criton ('637) does not expressly teach steps for determining the true angular position by averaging a sum of the calculated angular positions. In the same field of endeavor, Li ('944) teaches steps of improving correction of the angle of velocity as measured by Doppler ultrasound by calculating a spatial average of a plurality of angles (claims 1, 3 and 5), which constitutes averaging a sum of calculated angular positions as claimed. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Criton ('637) to include the spatial averaging step of Li ('944), as such a modification requires nothing more than a mere combination of known prior art elements to yield predictable results, which has previously been held as unpatentable (see for precedent *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385).

Regarding claims 7 and 30, the Doppler power spectra obtaining step of Criton ('637) must inherently be performed over a given time period as claimed, as it would be impossible for one of reasonable skill in the art to obtain such a spectrum in a single instant.

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Regarding claims 10, 11, 33 and 34, Criton ('637) teaches the method and system for ultrasound assessment of blood, wherein blood constitutes ultrasound scattering fluid as is presently claimed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PARIKHA S. MEHTA whose telephone number is (571)272-3248. The examiner can normally be reached on M-F, 8 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571.272.4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian L Casler/

Supervisory Patent Examiner, Art Unit
3737

/Parikha S Mehta/

Examiner, Art Unit 3737